Location ID	Attempt	Date	Sampling Coordinates: Easting	Northing	Longitude	Latitude	Penetration (feet)	Recovery (feet)	Recovery (pct)	Within Excavation Boundary (Y/N)	Design Subgrade (feet MLLW)	Sample Start (ft)	Sample End (ft)	Sample Interval: Below Surface (feet)	Sample Interval: Elevation (feet MLLW)	Elevation Start (ft MLLW)	Elevation End (ft MLLW)	Sample ID	Major Sediment Lithology	Sample Type: Full suite[a]	Excavation Suite[b]	Geotech[c]	Archive	Archive Triggers
SC-01	4	3/26/2019	1267792	212838	122° 20' 34.8" W	47° 34' 24.5" N	1.5	1.4	93	Y	-4.1	0	1	0 to 1	0.1 to -0.9	0.1	-0.9	T25-SC01A-0-1	Silt with sand, sand with ilt, grading to gravel				X	
	5	3/26/2019	1267792	212871	122° 20' 34.8" W	47° 34' 24.8" N	2.0	2.0	100	N	NA	0	1	0 to 1	-11.5 to -12.5	-11.5	-12.5	T25-SC01B-0-1	Silty sand with shell hash				X	
												1	2	1 to 2	-12.5 to -13.5	-12.5	-13.5	T25-SC01B-1-2	Shell hash and gravel				X	
SC-02	2	3/25/2019	1267668	212812	122° 20' 36.6" W	47° 34' 24.2" N	7.5	7.0	93	Y	-7.3	0	4.6	0 to 4.6	-2.7 to -7.3	-2.7	-7.3	T25-SC-02-0-4.6 T25-SC-52-0-4.6 (FD)	--		X			
												0	1	0 to 1	-2.7 to -3.7	-2.7	-3.7	T25-SC02-0-1	Shell hash, sand, and silt				X	
												1	2	1 to 2	-3.7 to -4.7	-3.7	-4.7	T25-SC02-1-2	Shell hash, sand, and silt				X	
												2	3	2 to 3	-4.7 to -5.7	-4.7	-5.7	T25-SC02-2-3	Silty sand				X	
												3	4.6	3 to 4.6	-5.7 to -7.3	-5.7	-7.3	T25-SC02-3-4.6	Silty sand to poorly graded sand				X	
												4.6	5.6	4.6 to 5.6	-7.3 to -8.3	-7.3	-8.3	T25-SC02-4.6-5.6	Poorly graded sand	X				
												5.6	7	5.6 to 7	-8.3 to -9.7	-8.3	-9.7	T25-SC02-5.6-7	Poorly graded sand				X	
SC-03	1	3/24/2019	1267651	212756	122° 20' 36.8" W	47° 34' 23.6" N	8.0	6.8	85	Y	-6.9	0	1.7	0 to 5.7	0.6 to -5.1	0.6	-1.1	T25-SC03-0-5.7[d]	*Multiple intervals, reference core log*	--	X[d]	--	--	
														0 to 1.7	0.6 to -1.1	0.6	-1.1	T25-SC03-0-1.7	Very wet Silt with sand	--	--	--	X	
												1.7	2.7	1.7 to 2.7	-1.1 to -2.1	-1.1	-2.1	T25-SC03-1.7-2.7	Sand with silt	--	--	X	X	
												2.7	3.7	2.7 to 3.7	-2.1 to -3.1	-2.1	-3.1	T25-SC03-2.7-3.7	Sand with silt	--	--	--	X	
												3.7	4.7	3.7 to 4.7	-3.1 to -4.1	-3.1	-4.1	T25-SC03-3.7-4.7	Poorly graded sand	--	--	--	X	X
												4.7	5.7	4.7 to 5.7	-4.1 to -5.1	-4.1	-5.1	T25-SC03-4.7-5.7	Poorly graded sand	--	--	--	X	O
												5.7	6.2	5.7 to 6.2	-5.1 to -5.6	-5.1	-5.6	T25-SC03-5.7-6.2	Poorly graded sand	X[e]	--	--	X	
SC-04	1	3/24/2019	1267598	212603	122° 20' 37.6" W	47° 34' 22.1" N	7.9	7.2	91	Y	-5.4	0	1	0 to 4.0	-1.7 to -5.7	-1.7	-2.7	T25-SC04-0-4[d]	Silt with sand, silty sand	--	X[d]	--	X	
														0 to 1	-1.7 to -2.7	-1.7	-2.7	T25-SC04-0-1	Silt with sand	--	--	--	X	
												1	2	1 to 2	-2.7 to -3.7	-2.7	-3.7	T25-SC04-1-2	Silty sand	--	--	--	X	
												2	3	2 to 3	-3.7 to -4.7	-3.7	-4.7	T25-SC04-2-3	Silty sand	--	--	X	X	
												3	4	3 to 4	-4.7 to -5.7	-4.7	-5.7	T25-SC04-3-4	Silty sand	--	--	--	X	
												4	5	4 to 5	-5.7 to -6.7	-5.7	-6.7	T25-SC04-4-5	Poorly graded sand	X	--	--	X	
												5	6	5 to 6	-6.7 to -7.7	-6.7	-7.7	T25-SC04-5-6	Poorly graded sand	--	--	--	X	X
												5	5.6	5 to 5.6	-6.7 to -7.3	-6.7	-7.3	T25-SC04-5-5.6	Poorly graded sand	--	--	X	--	
												6	6.7	6 to 6.7	-7.7 to -8.4	-7.7	-8.4	T25-SC04-6-6.7	Silt with decomposed organics	--	--	--	X	O
SC-05	3	3/26/2019	1267419	212412	122° 20' 40.1" W	47° 34' 20.2" N	2.0	2.0	100	Y	-10.9	0	1	0 to 1	-13 to -14	-13	-14	T25-SC05-0-1	Silty sand	X	--	--	X	
												1	2	1 to 2	-14 to -15	-14	-15	T25-SC05-1-2	Silty sand and sand	--	--	--	X	[illegible]
SC-06	1	3/26/2019	1267526	212519	122° 20' 38.6" W	47° 34' 21.3" N	4.0	3.4	85	Y	-7.7	0	1	0 to 1	-6 to -7	-6	-7	T25-SC06-0-1 T25-SC56-0-1 (FD)	Silty sand	X	--	--	--	
												1	1.5	1 to 1.5	-7 to -7.5	-7	-7.5	T25-SC06-1-1.5	Poorly graded sand	--	--	--	X	
												1.5	2.5	1.5 to 2.5	-7.5 to -8.5	-7.5	-8.5	T25-SC06-1.5-2.5	Organics (wood fibers)	--	--	--	X	X
												2.5	3.3	2.5 to 3.3	-8.5 to -9.3	-8.5	-9.3	T25-SC06-2.5-3.3	Organics (wood fibers)	--	--	--	X	O

Location ID	Tier 2 Testing Rationale	Proposed Tier 3 Testing Rationale
SC-01	No further testing because neither core reached the Z-layer. Nearby historical surface sediment and core data can be used for excavation material characterization.	Not applicable
SC-02	The Excavation Suite[b] was analyzed in a 0 - 4.6 ft composite sample to characterize material that will be excavated for waste disposal (see IDW worksheet for results). Testing of smaller intervals was not conducted because it will be removed during construction. The full suite of analyses were conducted on the Z-layer (4.6 - 5.6 feet). No further testing because the Z-layer was tested and only one compound was slightly over the SMS SCO (acenaphthene at 18.8 mg/kg-OC), as agreed to with EPA during the June 11, 2019 meeting.	Not applicable
SC-03	The Excavation Suite[b] was analyzed in a 0 - 5.7 ft composite sample to characterize material that will be excavated for waste disposal (see IDW worksheet for results). Testing of smaller intervals was not conducted because it will be removed during construction. The core did not reach the Z-layer and the deepest sample interval was tested, which was below SMS (T25-SC03-5.7-6.2). Upper-most poorly graded sand interval will be tested for full suite of SMS analyses to refine vertical extent of contamination.	The next interval down will be tested for parameters that exceeded SMS screening levels (SVOCs [2,4-dimethylphenol], PAHs, PCBs, TS, TOC).
SC-04	The Excavation Suite[b] was analyzed in a 0 - 4.0 ft composite sample to characterize material that will be excavated for waste disposal (see IDW worksheet for results). Testing of smaller intervals was not conducted because it will be removed during construction. The full suite of analyses were conducted on the Z-layer (4.0 - 5.0 feet). The Z-layer was tested and had SMS exceedances. The next interval down will be tested for the parameters that exceeded SMS screening levels (mercury, SVOCs [1,2,4-trichlorobenzene], PCBs, DFs, TS, TOC).	The next interval down will be tested for parameters that exceeded SMS screening levels (PAHs, PCBs, DFs, TS, TOC).
SC-05	The elevation of this core was deeper than the design subgrade; however for RI characterization purposes, the next interval down will be tested for the parameters that exceeded SMS screening levels (PCBs, TS, TOC).	No more sample due to difficulty coring at this location. Refusal was hit at 2 feet due to hard surface (rock, gravel).
SC-06	This core was just inside the excavation boundary. The sample interval that contains the Z-layer (-7.7 feet MLLW) will be tested for the parameters that exceeded SMS screening levels in the 0-1 ft interval (SVOCs [BEP, chrysene], PCBs, DFs, TS, TOC).	The next interval down will be tested for parameters that exceeded SMS screening levels (SVOCs, PAHs, PCBs, DFs, TS, TOC).

SC-07	1	3/25/2019	1267572	212704	122° 20' 38.0" W	47° 34' 23.1" N	9.5	7.4	78	N	NA	0	1	0 to 1	-21 to -22	-21	-22	T25-SC07-0-1 T25-SC57-0-1 (FD)	Silt	X	--	--	--		This core is outside the excavation boundary and was collected for RI characterization. Anthropogenic debris was found at 3.5 ft, so the first sample in the next lithologic layer, T25-SC07-5-6, was selected for testing. Testing will include the parameters that exceeded SMS screening levels in the 0-1 ft interval (PCBs, DFs, TS, TOC). Added PAHs based on EPA feedback, because concentrations of PCBs and DFs were higher in the subsurface interval.	The next interval down will be tested for parameters that exceeded SMS screening levels (mercury, SVOCs, PAHs, PCBs, DFs, TS, TOC). Shallower intervals will not be tested because the lithology and core observations suggest they would have elevated concentrations.	
												1	2	1 to 2	-22 to -23	-22	-23	T25-SC07-1-2	Silt	--	--	X	X				
												2	3	2 to 3	-23 to -24	-23	-24	T25-SC07-2-3	Silt	--	--	--	X				
												3	4	3 to 4	-24 to -25	-24	-25	T25-SC07-3-4	Silt	--	--	--	X				
												4	5	4 to 5	-25 to -26	-25	-26	T25-SC07-4-5	Silt	--	--	--	X				
												5	6	5 to 6	-26 to -27	-26	-27	T25-SC07-5-6	Silt with decomposed organics	--	--	--	X	X			
												6	7	6 to 7	-27 to -28	-27	-28	T25-SC07-6-7	Silt with decomposed organics	--	--	--	X	G			
SC-08	1	3/25/2019	1267625	212882	122° 20' 37.3" W	47° 34' 24.9" N	12.0	10.6	88	N	NA	0	1	0 to 1	-22.5 to -23.5	-22.5	-23.5	T25-SC08-0-1	Silt	X	--	--	--		This core is outside the excavation boundary and was collected for RI characterization. The entire core is silt, and hydrocarbon-like odor was observed at 6 ft. The first interval below the odor, T25-SC08-7-8, was selected for testing. Testing will be include the parameters that exceeded SMS screening levels in the 0-1 ft interval (SVOCs [PAHs], PCBs, DFs, TS, TOC).	The next interval down will be tested for parameters that exceeded SMS screening levels (SVOCs, PAHs, PCBs, DFs, TS, TOC). Shallower intervals will not be tested because the lithology and core observations suggest they would have elevated concentrations.	The ne
												1	2	1 to 2	-23.5 to -24.5	-23.5	-24.5	T25-SC08-1-2	Silt	--	--	--	X				
												2	3	2 to 3	-24.5 to -25.5	-24.5	-25.5	T25-SC08-2-3	Silt	--	--	--	X				
												3	4	3 to 4	-25.5 to -26.5	-25.5	-26.5	T25-SC08-3-4	Silt	--	--	--	X				
												4	5	4 to 5	-26.5 to -27.5	-26.5	-27.5	T25-SC08-4-5	Silt	--	--	--	X				
												5	6	5 to 6	-27.5 to -28.5	-27.5	-28.5	T25-SC08-5-6	Silt	--	--	--	X				
												6	7	6 to 7	-28.5 to -29.5	-28.5	-29.5	T25-SC08-6-7	Silt	--	--	--	X				
												7	8	7 to 8	-29.5 to -30.5	-29.5	-30.5	T25-SC08-7-8	Silt	--	--	--	X	X			
												8	9	8 to 9	-30.5 to -31.5	-30.5	-31.5	T25-SC08-8-9	Silt	--	--	--	X	G			
												9	10	9 to 10	-31.5 to -32.5	-31.5	-32.5	T25-SC08-9-10	Silt	--	--	--	X	Y			
SC-09[f]	5[f]	3/24/2019	1267739	212899	122° 20' 35.6" W	47° 34' 25.1" N	2.7	1.5	56	N	NA	0	1	0 to 1	-30.9 to -31.9	-30.9	-31.9	T25-SC09-0-1	Silt	--	--	--	X		This core is outside the excavation boundary and was collected for RI characterization. The entire core is silt. Because of the similar lithology, T25-SC09B-2-3, was selected for testing. Testing will include the parameters that exceeded SMS screening levels in the 0-1 ft interval (mercury, SVOCs [PAHs], DFs, TS, TOC).	The next interval down will be tested for parameters that exceeded SMS screening levels (mercury, PAHs, TS, TOC). Additionally, PCBs will be analyzed to confirm that concentrations are below SMS.	
												1	1.5	1 to 1.5	-31.9 to -32.4	-31.9	-32.4	T25-SC09-1-1.5	Silt	--	--	--	X				
	6[f]	3/26/2019	1267749	212874	122° 20' 35.4" W	47° 34' 24.8" N	5.0	4.4	88	N	NA	0	1	0 to 1	-13.8 to -14.8	-13.8	-14.8	T25-SC09B-0-1	Silt	X	--	--	--				
												1	2	1 to 2	-14.8 to -15.8	-14.8	-15.8	T25-SC09B-1-2 T25-SC59B-1-2 (FD)	Silt	--	--	--	X				
												2	3	2 to 3	-15.8 to -16.8	-15.8	-16.8	T25-SC09B-2-3	Silt	--	--	--	X	X			
												3	4	3 to 4	-16.8 to -17.8	-16.8	-17.8	T25-SC09B-3-4	Silt	--	--	--	X	G			

Notes:
X = Triggered in July 2019
G = Proposed Tier 3 Trigger
Y = Proposed Tier 4 Trigger
a. Grain size, TS/TOC, metals, SVOCs, PAHs, Total PCB Aroclors, and dioxins/furans
b. TCLP metals, SVOCs, PAHs, PCBs, and TS
c. Grain size, atterberg limits, moisture content, and specific gravity
d. Lab generated composite using equal amount of sediment from individual interval archives
e. inssufficent volume for grain size analysis
f. The 5th attempt at location SC-09 was accepted on 3/24/2019 with 56% recovery and samples were archived. An additional 6th attempt was made on 3/26/2019 with improved recovered depth and percent recovery, which replaced the original samples collected.
MLLW: mean lower low water
PAH: polycyclic aromatic hydrocarbon
PCB: polychlorinated biphenyl
SVOC: semivolatile organic carbon
TOC: total organic carbon
TS: total solids

Cell: R13
Comment: [Threaded comment]

Your version of Excel allows you to read this threaded comment; however, any edits to it will get removed if the file is opened in a newer version of Excel. Learn more: https://go.microsoft.com/fwlink/?linkid=870924

Comment:
not hitting design elevation at deepest interval

Cell: Q14
Comment: [Threaded comment]

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Comment:
This interval hits design subgrade
Reply:
I think we should do the next interval.

Cell: Q13
Comment: [Threaded comment]

Your version of Excel allows you to read this threaded comment; however, any edits to it will get removed if the file is opened in a newer version of Excel. Learn more: https://go.microsoft.com/fwlink/?linkid=870924

Comment:
shallowest sample is below subgrade? speaks to poor bathy or changes since last survey

Tier 2

Elevation Start (ft MLLW)	Elevation End (ft MLLW)	Sample ID	Sample Archive Testing Parameters
-3.1	-4.1	T25-SC03-3.7-4.7	Metals, mercury, SMS SVOCs, PCBs, DFs, TS, TOC.
-6.7	-7.7	T25-SC04-5-6	Mercury, SMS SVOCs, PCBs, DFs, TS, TOC.
-14	-15	T25-SC05-1-2	PCBs, TS, TOC.
-7.5	-8.5	T25-SC06-1.5-2.5	SMS SVOCs, PCBs, DFs, TS, TOC.
-26	-27	T25-SC07-5-6	PCBs, DFs, TS, TOC.
-29.5	-30.5	T25-SC08-7-8	SMS SVOCs, PCBs, DFs, TS, TOC.
-15.8	-16.8	T25-SC09B-2-3	Mercury, SMS SVOCs, DFs, TS, TOC.
		T25-SB03-14.2-16.2	PCBs, TS

Tier 3

Sample ID	Sample Archive Testing Parameters
T25-SC03-4.7-5.7	SMS SVOCs, PCBs,TS, TOC.
T25-SC04-6-6.7	PAHs, PCBs, DFs, TS, TOC.
T25-SC06-2.5-3.3	SMS SVOCs, PCBs, DFs, TS, TOC.
T25-SC07-5-6	PAHs
T25-SC07-6-7	Mercury, SMS SVOCs, PCBs, DFs, TS, TOC.
T25-SC08-8-9	SMS SVOCs, PCBs, DFs, TS, TOC.
T25-SC09B-3-4	Mercury, PAHs, PCBs, TS, TOC.

*Use tests allowed in the Master Service Agreement

**Invoice line items have to match the MSA